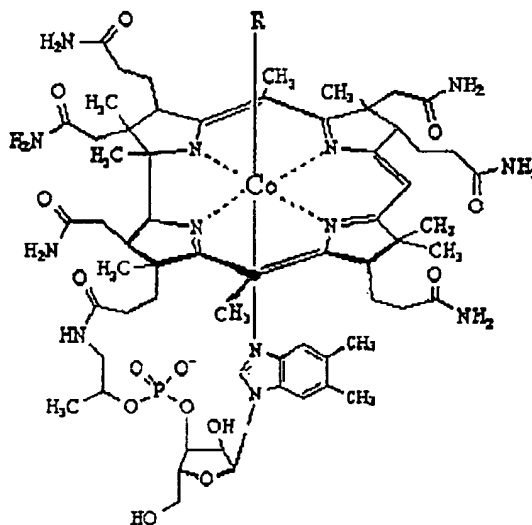


Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method for treating or preventing ~~a disease or disorder~~ damage to skin cells in a mammal caused by ultraviolet radiation, comprising administering an effective amount of a vitamin selected from the group consisting of B12 having the formula:



wherein R is OH, CN, NO₂, CH₃, or 5'-deoxy-adenosyl, derivatives thereof, vitamin B3, derivatives thereof, vitamin B9, derivatives thereof, and mixtures thereof ~~or a derivative of any of the foregoing.~~

2. (Currently amended) The method of claim 1, wherein the vitamin B12 is administered topically, orally,

parenterally, enterally, entranasally, rectally or
ocularly.

3. (Cancelled)

4. (Cancelled)

5. (Currently amended) The method of claim ~~2 or 3~~ 1 or 2, wherein the vitamin B12 is administered before, during or after the mammal is exposed to ultraviolet radiation.

6. (Currently amended) The method of claim ~~2~~ 1, wherein the vitamin B12 is administered in a sunscreen composition comprising vitamin B12 and a carrier or excipient.

7. (Currently amended) The method of claim 6, wherein the carrier ~~comprises a lipid~~ is a member selected from the group consisting of lipids, esters, solid inert diluents, liquid inert diluents, water, a gas, a water-based liquid, an oil, a gel, an emulsion, a dispersion, and mixtures thereof.

8. (Cancelled)

9. (Currently amended) The method of claim ~~6~~ 7, wherein the ester comprises an ester of para-aminobenzoate selected from the group consisting of ocytl- and dimethyl-para-aminobenzoic acid.

10. (Cancelled)

11. (Cancelled)

12. (Original) The method of claim 6, wherein the composition further comprises at least one compound selected from the group consisting of para-aminobenzoic acid, salicylate, cinnamate, benzophenone, anthranilate, dibenzoylmethane, beta-carotene, alpha-hydroxy acids, titanium dioxide and padimate-o.

13. (Original) The method of claim 6, wherein the composition further comprises at least one cosmetically acceptable adjuvant or additive selected from the group consisting of a preservative, organic solvent, browning agent, antioxidant, stabilizer, emollient, silicone, alpha-hydroxy acid, demulcent, anti-foaming agent, moisturizing agent, vitamin, fragrance, ionic or nonionic thickener, surfactant, filler, thickener, sequestrant, polymer, propellant, alkalizing or acidifying agent, opacifier, fatty compound and a colorant.

14. (Currently amended) The method of claim 6, wherein the composition ~~further~~ comprises vitamin B3 or a derivative thereof.

15. (Original) The method of claim 14, wherein the vitamin B3 is niacinamide.

16. (Currently amended) The method of claim 6, wherein the composition ~~further~~ comprises vitamin B9 or a derivative thereof.

17. (Original) The method of claim 16, wherein the vitamin B9 is selected from the group consisting of folic acid, dihydrofolic acid, tetrahydrofolic acid, 5-formyltetrahydrofolic acid, 10-formyltetrahydrofolic acid, 5-10 methylenetetrahydrofolic acid, 5-10 methenyltetrahydrofolic acid, and 5-methyltetrahydrofolic acid or derivatives thereof.
18. (Currently amended) The method of claim 6, wherein the composition ~~further~~ comprises vitamin B3 or a derivative thereof, and vitamin B9 or a derivative thereof.
19. (Original) The method of claim 18, wherein the vitamin B3 is niacinamide and the vitamin B9 is selected from the group comprising folic acid, dihydrofolic acid, tetrahydrofolic acid, 5-formyltetrahydrofolic acid, 10-formyltetrahydrofolic acid, 5-10 methylenetetrahydrofolic acid, 5-10 methenyltetrahydrofolic acid, 5-10 methylenetetrahydrofolic acid or derivatives thereof.
20. (Original) The method of claim 6, wherein the vitamin B12 is present in an amount of about 0.1 mg/ml to 1 mg/ml.
21. (Original) The method of claim 14, wherein the vitamin B3 is present in an amount of about 2 mg/ml to about 100 mg/ml.
22. (Original) The method of claim 16, wherein the vitamin B9 is present in an amount of about 0.2 mg/ml to about 10

mg/ml.

23. (Currently amended) The method of claim ~~3~~ 2, wherein the vitamin B12 is administered as a pharmaceutical composition comprising vitamin B12 and a pharmaceutically acceptable carrier or excipient.
24. (Original) The method of claim 23, wherein the carrier comprises water, gas, a water-based liquid, an oil, a gel, an emulsion, a dispersion or a mixture thereof.
25. (Original) The method of claim 23, wherein the carrier comprise a lipid.
26. (Original) The method of claim 23, wherein the composition further comprises at least one DNA repair enzyme selected from the group consisting of T4 endonuclease or photolyase.
27. (Original) The method of claim 23, wherein the composition is administered as a formulation selected from the group consisting of tablets, dragees, suppositories, capsules, granules, solution, suspensions, and lyophilized compositions.
28. (Original) The method of claim 23, wherein the composition further comprises an additive selected from the group consisting of aggregants, disaggregants, osmotic pressure regulating salts, buffers, sweeteners, and coloring agents.

29. (Original) The method of claim 23, wherein the composition further comprises a fat-soluble antioxidant selected from the group consisting of ascorbyl palmitate, tocopherols and ascorbic acid in the presence of lecithin.

30. (Original) The method of claim 23, wherein the composition is administered as a formulation selected from the group consisting of tablets, dragees, capsules, suppositories, granules, solution, suspension, and lyophilized compositions.

31. (Original) The method of claim 23, wherein the composition further comprises vitamin B3 or a derivative thereof.

32. (Original) The method of claim 31, wherein the vitamin B3 is niacinamide.

33. (Original) The method of claim 23, wherein the composition further comprises vitamin B9 or a derivative thereof.

34. (Currently amended) The method of claim ~~33~~ 23, wherein the vitamin B9 is selected from the group comprising folic acid, dihydrofolic acid, tetrahydrofolic acid, 5-formyltetrahydrofolic acid, 10-formyltetrahydrofolic acid, 5-10 methylenetetrahydrofolic acid, 5-10 methenyltetrahydrofolic acid and 5-methyltetrahydrofolic acid or derivatives thereof.

35. (Original) The method of claim 23, wherein the composition further comprises vitamin B3 or a derivative thereof, and vitamin B9 or a derivative thereof.

36. (Original) The method of claim 35, wherein the vitamin B3 is niacinamide and the vitamin B9 is selected from the group comprising folic acid, dihydrofolic acid, tetrahydrofolic acid, 5-formyltetrahydrofolic acid, 10-formyltetrahydrofolic acid, 5-10 methylenetetrahydrofolic acid, 5-10 methenyltetrahydrofolic acid and 5-methyltetrahydrofolic acid or derivatives thereof.

37. (Original) The method of claim 23, wherein the amount of vitamin B12 to be administered to an adult is present in an amount of about 0.1 mg to about 1.5 mg.

38. (Original) The method of claim 31, wherein the amount of vitamin B3 to be administered to an adult is present in an amount of about 100 mg to about 1 g.

39. (Original) The method of claim 33, wherein the vitamin B9 to be administered to an adult is present in an amount of about 1 mg to about 10 mg.

40. (Original) The method of claim 23, wherein the amount of vitamin B12 to be administered to a child is present in an amount of about 20 ug to about 1.5 mg.

41. (Original) The method of claim 31, wherein the amount of vitamin B3 to be administered to a child is present in an amount of about 20 mg to about 1 g.

42. (Original) The method of claim 33, wherein the vitamin B9 to be administered to a child is present in an amount of about 200 ug to about 10 mg.

43-73. (Cancelled)